Response to comments re: public hearing on proposed changes to Env-Ws 1700

A public hearing was held on March 14, 2008 to receive public comment on rules proposed by the Department of Environmental Services to readopt, with clarifying amendments, existing water quality standards for the state's surface waters. No oral or written comments were received at the hearing. One set of comments was received from William Beckwith of the Environmental Protection Agency during the comment period. This document responds to the comments by providing the rule in question, EPA's comment on the rule and DES' response to the comment.

Rule:
Env-Ws ~~*s*~~***q*** 1702.53 "Wetland" means "wetland" as defined in ~~Wt 101.87~~ ***RSA 482-A:2, X***, namely "an area that is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal conditions does support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Wetlands include~~, but are not limited to~~ swamps, marshes, bogs and similar areas as delineated in accordance with ***Env-***Wt~~.~~ ~~301.01~~ ***100 et seq***.

EPA comment:
wetlands definition, p. 5: Normally a definition that says "including [whatever]" means "including but not limited to." But here, DES proposes to delete the explicit language "but not limited to." This raises the question of whether DES intends to limit the definition of wetlands to just the types specifically listed. That would be a concern if it narrowed the extent to which NH's WQS are applicable to wetlands within NH that are waters of the US. Please explain the purpose and meaning of this draft revision.

DES response:
The deleted language was deleted from the Wetlands rules on the basis that deleting it did not change anything but it made some people (the vocal minority) happier. We have been deleting the language from other rules to be consistent with the Wetlands rules. However, based on EPA's concerns we have added the language back in and will see what happens at the JLCAR.

Rule:
Env-Wq 1703.11 Turbidity
(d) For purposes of state enforcement actions, if a discharge causes or contributes to an increase in turbidity of 10 NTUs or more above the turbidity of the receiving water upstream of the discharge or otherwise outside of the visible discharge, a violation of the turbidity standard shall be deemed to have occurred.

EPA comment:
The proposed new turbidity provision at Env-Wq 1703.11(d), page 8, i.e., ***"For purposes of state enforcement actions, if a discharge causes or contributes to an increase in turbidity of 10 NTUs or more above the turbidity of the receiving water upstream of the discharge or otherwise outside of the visible discharge plume, a violation of the turbidity standard shall be deemed to have occurred."***
: Introduction of a separate interpretation for enforcement creates confusion as to the meaning of the underlying criteria otherwise applicable at Env-Wq 1703.11(a), (b), and (c). To the extent that NH may feel that the suggested provision is necessary, it would be better used as an enforcement discretion policy, and not included in the WQS.

DES response:
We added it to the rule specifically because having it in "policy" might be inadequate to withstand a challenger were one to be made. The provision is limited to state enforcement actions so as to not interfere with EPA actions.

Rule:
Env-Wq 1703.22 Notes for Table 1703.1
(d) ***The letter*** "d" shall indicate that criteria for these metals are expressed as a function of the water effect ratio (WER) as defined in 40 CFR 131.36(c). The values displayed in Table 1703.1 correspond to a WER of 1.0. To determine metals criteria for different WER's, the procedures described in the EPA publication "Interim Guidance on Determination and Use of Water-Effect Ratios for Metals" (EPA-823-B-94-001) shall be used. ***For copper, the "Streamlined Water-Effect Ratio procedure for Discharges of Copper" (EPA-822-R-01-005) or the Biotic Ligand Model (freshwater only) (EPA-822-R-07-001) may also be used.***

and

Env-Wq 1704.02 Procedures
(b) The procedure for determining alternative site specific criteria for protection of aquatic life shall be as published in EPA's "Interim Guidance on Determination and Use of Water-Effect Ratios for Metals" dated February, 1994 and published in EPA's Water Quality Standards Handbook: Second Edition. ***For copper, the "Streamlined Water-Effect Ratio procedure for Discharges of Copper", EPA-822-R-01-005, or the Biotic Ligand Model (freshwater only), EPA-822-R-07-001, may also be used.***

EPA comment:
Inclusion of EPA's Streamlined WER guidance and the BLM for adjusting copper criteria (pages 15 and 26): Inclusion of EPA's guidance "Streamlined Water-Effect Ratio Procedure for Discharges of Copper" is proposed. We suggest that DES include a statement that "the Department may require more than the two WERs prescribed in the method as necessary to characterize variability and ensure protection of aquatic life uses." There are some difficult issues with WER development that the streamlined guidance attempts to address in an appropriate way; however, we are concerned that the average of the results for two samples/WERs representing a single instream condition may not be adequate to ensure that site-specific criteria will be protective. The "Interim" WER guidance and the BLM are more rigorous in that regard.

DES response:
The referenced EPA document for WER procedure already provides for more than two samples. Under the Analysis of Data section on page 5 it states "Final site WER is the geometric mean of the two (or more) sample WERs". Adding the above statement would be redundant. In addition, EPA has final approval of any proposed alternative site specific criteria and can require additional samples if needed.

Rule:
Env-Ws~~q~~ 1703.25 Freshwater Aquatic Life Criteria For Ammonia.

EPA comment:
Revision of the freshwater ammonia criteria to EPA's "1999 Update," page 18:
- A provision of EPA's 1999 freshwater ammonia criteria, i.e., "The highest four day average within a thirty day period is not to exceed 2.5 times the CCC," is omitted. We note that the duration and frequency components that are to accompany the magnitude components are not stated either. Presuming DES's intent is to use EPA's guidance with regard to duration and frequency for freshwater ammonia (i.e., the 1 hour average for acute and 30 day average for chronic, and the frequency component that these durations not be exceeded more that once every three years on average), the omitted provision should be adopted. The omitted provision would not be necessary if the intent is to apply the magnitudes (criterion maximum concentration (CMC) for acute and criterion continuous concentration (CCC) for chronic) as instantaneous values not to be exceeded.

DES response:
In response to your first comment, we propose to add the omitted statement as paragraph (h) under Env-Wq 1703.25.

(h) In addition to (e) and (f) above, the highest 4-day average within a 30-day period shall not exceed 2.5 times the chronic criteria.

In response to the lack of frequency and duration statements, those issues are currently under discussion and will be addressed in the next rule adoption. As you know, a frequency and duration statement for ammonia is different than the required frequency and duration for most other toxics. How best to address this issue is under discussion and it is premature to insert a language change in this rule adoption.

Rule:
(d) Subject to (e) and (f) below, Tables 1703.4B and 1703.4C shall be used to calculate freshwater chronic aquatic life criteria, in milligrams of nitrogen per liter, for ammonia. The use of Table 1703.4C requires documentation acceptable to the Department of the absence of fish early life stages.

EPA comment:
We support the statement at Env-Ws 1703.25(d) requiring adequate information to document use of the early life stages absent values. The importance of adequate and reliable information for this purpose was emphasized in the federal register notice announcing availability of the freshwater ammonia criteria 1999 update (64 FR 71973-71980).

DES response:
No response required. note that (d) will now read: "Subject to (e) through (h), below, …"

Rule:
Env-Ws~~q~~ 1703.25 Freshwater Aquatic Life Criteria For Ammonia.

EPA comment:
Notwithstanding the above comments concerning adoption of EPA's 1999 freshwater ammonia criteria guidance, recent research indicates that mussels may be more sensitive to ammonia than the organisms included in the data set for EPA's 1999 ammonia criteria revision. EPA's 1999 chronic criteria guidance for ammonia is less stringent than EPA's 1998 chronic criteria (that are currently in New Hampshire's water quality standards) at pH and temperature conditions most common to New Hampshire's waters, particularly at colder temperatures. We encourage DES to carefully consider this prior finalizing revisions to its standards.

DES response:
Our intent is to follow EPA's most recent guidance document for ammonia: *1999 Update of Ambient Water Quality Criteria for Ammonia* (EPA-822-R-99-014). We are uncomfortable making changes based on recent research that has not yet been incorporated into EPA guidance. Changes can be made in a future rule adoption, if appropriate.

Rule:
PART Env-Ws~~q~~ 1708 ANTIDEGRADATION

Env-Ws~~q~~ 1708.01 Purpose. The purpose of these antidegradation provisions is to ensure that the following provisions of 40 CFR 131.12 are met:

(a) Existing ~~instream water~~ uses and the level of water quality necessary to protect the existing uses shall be maintained and protected;

EPA comment:
existing use, deletion of "instream" at p. 28 & throughout the antidegradation section. Though "instream" is consistent with the federal existing use language, the revision might be acceptable. We would like to understand DES's thought on the issue before making a determination. Please explain the purpose and meaning of this draft revision.

DES response:
Water quality criteria apply to lakes and ponds as well as flowing waters. The use of the term "instream" is misleading and confusing. In addition, water quality criteria are designed to support existing and designated uses. Wildlife support is a designated use in New Hampshire and is defined as "waters that provide suitable physical and chemical conditions in the water and the riparian corridor to support wildlife as well as aquatic life". In other words, it is a use that is not necessarily *in* the water. Deleting the term "instream water" clarifies the fact that the rules apply to **all** existing and designated uses for **all** surface waters.